Appl. No. 10/023,227

Amendment, dated October 6, 2003

Reply to: Office Action Dated June 6, 2003

## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

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## **Listing of Claims:**

- 1. (currently amended) A cooling system for cooling a circuit board including a first heat source and a second heat source, comprising:
- <u>a first cold plate</u> cooling apparatus configured to absorb heat dissipated from the first and second heat sources; and

an <u>a first</u> actuator configured to actuate the <del>cooling apparatus</del> <u>first cold plate</u> into conforming thermal contact with the first and second heat sources on the circuit board.

- (currently amended) The cooling system of claim 1, wherein: A cooling system for cooling a circuit board including a first heat source and a second heat source, comprising:

   a cooling apparatus configured to absorb heat dissipated from the first and second heat sources; and
  - an actuator configured to actuate the cooling apparatus into conforming thermal contact with the first and second heat sources;
  - wherein the cooling apparatus comprises a first cooled body and a second cooled body;
  - wherein the actuator is configured to actuate the first cooled body into conforming thermal contact with the first heat source; and
  - wherein the actuator is further configured to actuate the second cooled body into conforming thermal contact with the second heat source.
  - 3. (original) The cooling system of claim 2, wherein:
  - the actuator comprises a support configured to retractably actuate toward and away from the circuit board; and
    - the first and second cooled bodies are compliantly mounted to the support.

Appl. No. 10/023,227

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- 4. (withdrawn currently amended) The cooling system of claim 1, wherein the cooling apparatus cold plate comprises a thermally conductive body composed of a compliant material, and wherein the cooling apparatus cold plate adaptively conforms to the first and second heat sources to compensate for any differences in their height with respect to the circuit board.
- 5. (withdrawn currently amended) The cooling system of claim 4, wherein the cooling apparatus cold plate defines a non-planar surface that substantially conforms to the height of the first and second heat sources with respect to the circuit board.
- 6. (currently amended) The cooling system of claim 1, and further including A cooling system for cooling a circuit board including a first heat source, a second heat source, and a third heat source, the first heat source and the second heat source being on a first side of the circuit board, and the third heat source being on a second side of the circuit board, and further comprising:
- a first cooling apparatus configured to absorb heat dissipated from the first and second heat sources;
- a first actuator configured to actuate the first cooling apparatus into conforming thermal contact with the first and second heat sources;
- a second cooling apparatus configured to absorb heat dissipated from the third heat source; and
- a second actuator configured to actuate the second cooling apparatus into conforming thermal contact with the third heat source on the circuit board.
- 7. (original) The cooling system of claim 6, wherein:
  the first cooling apparatus comprises a first cooled body and a second cooled body;
  the second cooling apparatus comprises a third cooled body;

the first actuator is configured to actuate the first cooled body into conforming thermal contact with the first heat source;

the first actuator is further configured to actuate the second cooled body into conforming thermal contact with the second heat source; and

the second actuator is configured to actuate the third cooled body into conforming thermal contact with the third heat source.

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8. (original) The cooling system of claim 7, wherein:

the first actuator comprises a first support configured to retractably actuate toward and away from the first side of the circuit board;

the first and second cooled bodies are compliantly mounted to the first support; the second actuator comprises a second support configured to retractably actuate toward and away from the second side of the circuit board; and

the third cooled body is compliantly mounted to the second support.

- 9. (withdrawn) The cooling system of claim 6, wherein the first and second cooling apparatuses each comprise a thermally conductive body composed of a compliant material, and wherein the first cooling apparatus adaptively conforms to the first and second heat sources to compensate for any differences in their height with respect to the circuit board.
- 10. (withdrawn) The cooling system of claim 9, wherein the first cooling apparatus defines a non-planar surface that substantially conforms to the height of the first and second heat sources with respect to the circuit board.
  - 11. (currently amended) A cooling system for cooling a circuit board including a first heat source and a second heat source, comprising:
- a means for absorbing cold plate configured to absorb heat dissipated from the first and second heat sources; and
  - a means for actuating the means for absorbing cold plate into conforming thermal contact with the first and second heat sources on the circuit board.
- 25 12. (currently amended) The cooling system of claim 11, wherein: A cooling system for cooling a circuit board including a first heat source and a second heat source, comprising:

a means for absorbing heat dissipated from the first and second heat sources; and a means for actuating the means for absorbing into conforming thermal contact with the first and second heat sources;

- wherein the means for absorbing comprises a first cooled body and a second cooled body;
- wherein the means for actuating is configured to actuate the first cooled body into conforming thermal contact with the first heat source; and
- wherein the means for actuating is further configured to actuate the second cooled body into conforming thermal contact with the second heat source.

- 13. (currently amended) The cooling system of claim 11, wherein the means for actuating is configured to retractably actuate the means for absorbing cold plate toward and away from the circuit board.
- 5 14. (currently amended) A method for cooling a circuit board including a first heat source and a second heat source, comprising:

retractably actuating an actuator carrying a means for absorbing heat cold plate such that the means for absorbing heat cold plate is moved into conforming thermal contact with the first and second heat sources on the circuit board.

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15. (currently amended) The method of claim 14, wherein: A method for cooling a circuit board including a first heat source and a second heat source, comprising:

retractably actuating an actuator carrying a means for absorbing heat such that the means for absorbing heat is moved into conforming thermal contact with the first and second heat sources on the circuit board;

wherein the means for absorbing comprises a first cooled body and a second cooled body; and

wherein in the step of retractably actuating, the actuator is configured to actuate the first cooled body into conforming thermal contact with the first heat source, and the means for actuating is further configured to actuate the second cooled body into conforming thermal contact with the second heat source.

- 16. (new) A cooling system for cooling a circuit board including a first heat source and a second heat source, comprising:
  - a first cold plate configured to absorb heat dissipated from the first heat source;
- a second cold plate configured to absorb heat dissipated from the second heat source; and
- a first actuator configured to actuate the first and second cold plates into conforming thermal contact with the first and second heat sources, respectively.

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17. (new) The cooling system of claim 16, wherein:

the actuator comprises a support configured to retractably actuate toward and away from the circuit board; and

the first and second cold plates are compliantly mounted to the support.

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18. (new) The cooling system of claim 16, and further including a third heat source, the first heat source and the second heat source being on a first side of the circuit board, and the third heat source being on a second side of the circuit board and further comprising:

a third cold plate configured to absorb heat dissipated from the third heat source;

and

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a second actuator configured to actuate the third cold plate into conforming thermal contact with the third heat source.

19. (new) The cooling system of claim 7, wherein:

the first actuator comprises a first support configured to retractably actuate toward and away from the first side of the circuit board;

the first and second cold plates are compliantly mounted to the first support;
the second actuator comprises a second support configured to retractably actuate toward and away from the second side of the circuit board; and

the third cold plate is compliantly mounted to the second support.

20. (new) The method of claim 15, wherein the first cooled body and the second cooled body are cold plates.